ABSTRACT OF THE DISCLOSURE

A bar code symbol reading system is disclosed comprising a hand-supportable bar code symbol reading device which embodies an electronically-controlled bar code symbol reading engine for producing a raster-type laser scanning pattern in either a hands-free or hands-on mode of operation for scanning 1-D and 2D bar code symbols. The electronically-controlled bar code symbol reading engine has (i) a high-speed/high-resolution raster scanning mode of operation, during which a high-speed, high-resolution raster-type scanning pattern is precisely generated under electronic control, and (ii) a high-speed/low-resolution raster scanning mode of operation during which a high-speed, low-resolution raster-type scanning pattern is precisely generated under electronic control. The electronically-controlled bar code symbol reading engine is induced into its high-speed/high-resolution raster scanning mode of operation when the hand-supportable bar code symbol reading device is removed from its support stand, and into its high-speed/low-resolution raster scanning mode when the hand-supportable bar code symbol reading device is placed into its support stand. The bar code symbol reading engine comprises a pair of mechanically-damped off-resonant laser beam scanning mechanisms that are arranged on a miniature optical bench and electronically-controlled by either a synchronously or asynchronously driven drive circuit. When asynchronously driven, the raster laser scanning pattern floats slightly along the y-scanning direction to facilitate reading of 2-D bar code symbols during the hands-on mode of operation.